

t5_sincos10
(TMTQfz8rSEoTs3zUGgzYjN4gRPsmPP8pssd)

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Let $r2_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_fdiff_9 : \iota$ be given. Let $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $np_2 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_sin_cos : \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k19_sin_cos : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v3_rcomp_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k6_rfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\neg(X0 \in k2_rcomp_1 k6_numbers (k10_real_1 k32_sin_cos np_2))) \wedge (r1_xxreal_0 (k1_seq_1 k19_sin_cos X0) k6_numbers) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3_rcomp_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))) \Rightarrow \\ ((\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\neg(X1 \in X0) \wedge (k1_seq_1 \\ k19_sin_cos X1 = k6_numbers))) \Rightarrow ((r2_fdiff_1 (k6_rfunct_1 k1_numbers \\ k1_numbers k19_sin_cos) X0) \wedge (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\ ((X1 \in X0) \Rightarrow (k1_seq_1 (k2_fdiff_1 (k6_rfunct_1 k1_numbers k1_numbers \\ k19_sin_cos) X0) X1 = k10_real_1 (k1_seq_1 k16_sin_cos X1) (k5_square_1 \\ (k1_seq_1 k19_sin_cos X1))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((k1_seq_1 k19_sin_cos \\ X0 \neq k6_numbers) \Rightarrow ((r1_fdiff_1 k1_fdiff_9 X0) \wedge (k1_fdiff_1 k1_fdiff_9 \\ X0 = k10_real_1 (k1_seq_1 k16_sin_cos X0) (k5_square_1 (k1_seq_1 \\ k19_sin_cos X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (6)$$

Assume the following.

$$r1_xxreal_0 np_0 np_0 \quad (7)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ k2_rcomp_1 X0 X1 = k4_xxreal_1 X0 X1) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \exists X0.(v1_xboole_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xxreal_0 \\ X0) \wedge (v1_xreal_0 X0))) \end{aligned} \quad (10)$$

Assume the following.

$$v3_membered k1_numbers \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v3_rcomp_1 \\ (k4_xxreal_1 X0 X1)) \end{aligned} \quad (12)$$

Assume the following.

$$m1_subset_1 k32_sin_cos k1_numbers \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ m1_subset_1 (k2_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k10_real_1 X0 X1) k1_numbers) \quad (15)$$

Assume the following.

$$k1_fdiff_9 = k6_rfunct_1 k1_numbers k1_numbers k19_sin_cos \quad (16)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (18)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v1_xreal_0 X1)) \quad (19)$$

Theorem 1

$$(r2_fdiff_1 k1_fdiff_9 (k2_rcomp_1 k6_numbers (k10_real_1 k32_sin_cos np_2)))\wedge(\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow((X0 \in k2_rcomp_1 k6_numbers (k10_real_1 k32_sin_cos np_2))\Rightarrow(k1_fdiff_1 k1_fdiff_9 X0 = k10_real_1 (k1_seq_1 k16_sin_cos X0) (k5_square_1 (k1_seq_1 k19_sin_cos X0))))))$$